

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended) A process for the production of a protein ~~which involves~~ comprising the expression of said protein as a heterologous protein, wherein at least one of the parameters or conditions, which enable the regulation of the composition of inclusion bodies, is adjusted in such a way that the amount (proportion) of the correctly folded precursor of the heterologous protein after expression is increased in said inclusion bodies.

Claim 2. (Currently amended) A process for the production of a protein ~~which involves~~ comprising performing the biosynthesis of said protein as a heterologous protein in a micro-organism, ~~which~~ wherein said process comprises the steps of:
performing the biosynthesis in a way such that a precursor of the heterologous protein is formed in inclusion bodies of the micro-organism, wherein the precursor is capable of forming the biologically active heterologous protein under non-denaturing conditions;
isolating said precursor from the inclusion bodies under non-denaturing conditions to thereby form the biologically active heterologous protein.

Claim 3. (Currently amended) The process for the production of a protein according to claim 1 ~~or 2~~, wherein the heterologous protein is selected from the group ~~comprising~~: consisting of G-CSF, GM-CSF, M-CSF, EGF, HAS, DNase, FGF, TNF-alpha, TNF-beta, interferons and interleukins.

Claim 4. (Currently amended) The process for the production of a protein according to claim 1 ~~or 2~~, wherein the selected heterologous protein is G-CSF.

Claim 5. (Currently amended) The process for the production of proteins according to ~~any one of the preceding claims~~ claim 1, wherein the expression is performed in an organism selected from the group consisting of bacteria and yeasts.

Claim 6. (Original) The process for the production of a protein according to claim 5, wherein the expression is performed in the bacterium *E. coli*.

Claim 7. (Currently amended) The process for the production of a protein according to ~~any one of the preceding claims~~ claim 1, wherein the heterologous protein is accumulated in the inclusion bodies to a proportion of at least about 10%, ~~preferably at least about 20% and particularly at least about 30%~~, relative to the total protein mass of the host cell used in the expression system.

Claim 8. (Currently amended) The process for the production of a protein according to ~~any one of the preceding claims~~ 1, wherein the inclusion bodies are ~~capable of being mainly dissolved~~ dissolve in non-denaturing conditions.

Claim 9. (Currently amended) The process for the production of a protein according to ~~any one of the preceding claims~~ 1, wherein the process ~~involves the way of~~ comprises performing the biosynthesis comprising adjusting one or more parameters which are selected from the group consisting of: temperature of cultivation, composition of the cultivation medium, induction mode, principle of performing the fermentation, addition of an agent capable of causing stress, and co-expression of auxiliary proteins.

Claim 10. (Original) The process according to claim 9, wherein the temperature of cultivation is between about 20°C and 30°C.

Claim 11. (Canceled)

Claim 12. (Currently amended) The process according to ~~any one of claims 9 to 11~~, wherein the adjustment of the induction mode comprises selecting the inducer from the group consisting of IPTG, lactose and NaCl.

Claim 13. (Original) The process according to claim 12, wherein the selected inducer is IPTG.

Claim 14. (Original) The process according to claim 13, wherein the concentration of IPTG is in the range from 0.1 mM to 1 mM.

Claim 15. (Original) The process according to claim 14, wherein the concentration of IPTG is about 0.4 mM.

Claim 16. (Currently amended) The process according to ~~any one of claims 9 to 15~~, wherein the adjustment of the induction mode comprises adding the inducer at the beginning of the fermentation.

Claim 17. (Currently amended) The process according to ~~any one of claims 9 to 16~~, wherein the principle of performing the biosynthesis is selected from the group ~~comprising~~ consisting of performing of fermentation in a batch mode, performing of fermentation in a fed batch mode and fermentation in shake flasks.

Claim 18. (canceled)

Claim 19. (Currently amended) The process according to ~~any one of claims 9 to 18~~, wherein the medium is selected from the group ~~comprising~~ consisting of GYST, GYSP, LYSP, LYST, LBON and GYSPON.

Claim 20. (Currently amended) The process according to claim 48 ~~19~~, wherein the selected medium is GYST, or GYSP.

Claim 21. (Currently amended) The process according to ~~any one of~~ claims 9 ~~to 20~~, wherein the additive which is capable of causing stress is selected from the group consisting of ethanol and propanol.

Claim 22. (Currently amended) The process according to ~~any one of the preceding~~ claims 1, further comprising washing of the inclusion bodies.

Claim 23. (Original) The process according to claim 22, wherein the washing is performed by using a solution which is selected from the group consisting of Tris/HCl buffer, phosphate buffer, acetate buffer, citrate buffer and water.

Claim 24. (Original) The process according to claim 23, wherein the concentration of the selected buffer is in the range from about 1 mM to 10 mM.

Claim 25. (Original) The process according to claim 23, wherein the selected solution is water.

Claim 26. (Currently amended) The process for production of a protein according to ~~any one of the preceding~~ claims 1, wherein which further ~~comprising~~ comprises solubilisation of the inclusion bodies.

Claim 27. (Currently amended) A process for the production of a protein using a micro-organism, wherein said protein is expressed as a heterologous protein and is formed in inclusion bodies in said micro-organism, ~~which~~ wherein said process comprises the steps of:
isolating said inclusion bodies;
optionally washing said inclusion bodies;
and subjecting said inclusion bodies to a solubilisation treatment under non-denaturing conditions.

Claim 28. (canceled)

Claim 29. (Currently amended) The process according to claim 26 ~~or~~ 27, wherein the solubilisation is performed by using an agent for solubilisation ~~being~~ which is selected from the group consisting of: urea in non-denaturing concentrations (1-2 M), N-lauroyl sarcosine in non-denaturing concentrations (0.05-0.25% (m/v)), Zwittergents in low, non-denaturing concentrations, non-detergent sulfobetains (NDSBs), betain, sarcosine, carbamoyl sarcosine, taurine, DMSO and a buffer in a high, solubilising concentration, wherein the buffer is selected from the group consisting of: HEPES, HEPPS, MES, ACES, and MES.

Claim 30. (Currently amended) The process according to claim 29, wherein the ~~selected~~ solvent is N-lauroyl sarcosine.

Claim 31. (Original) The process according to claim 30, wherein the concentration of N-lauroyl sarcosine is in the range from about 0.1% to 0.25%.

Claims 32-37. (Canceled)